APPENDIX A
DISTRICT PROGRAMS

TABLE OF CONTENTS

TABLES

This Appendix describes each district's program including, by project category, the number of engines funded, the amount of funds granted, overall program NOx reductions and cost-effectiveness for statewide funds granted under the Carl Moyer Program. The subsections also describe each district's process for selecting projects as well as the schedule for accepting applications.

Table A-1
ARB's Solicitation Schedule

District Name	1998/1999 Year I	1999/2000 Year II	2000/2001 Year III	2001/2002 Year IV
Guidelines Approved	2/99	Same as Year I	11/00	Same as Year 3
Solicitation for Program App.	5/99	11/99	11/00	12/01
Application Evaluations	6/99	12/99	1/01	½
Funds Awarded	7/99	1/00 – 4/00	2/01	11/01-1/02
District Program Report to ARB	9/30/99	9/30/00	9/30/01	9/30/01
ARB Evaluation of Status Reports	10/99	10/00	10/01	10/01
District Annual Report to ARB	6/30/00	6/30/01	6/30/02	6/30/03
ARB Evaluation of Annual Reports	6/30/00 – 3/1/01	6/30/01 – 3/1/02	6/30/02 – 3/1/03	6/30/03 – 3/1/04
District Final Report Due	7/31/2001	7/31/2002	7/31/2003	7/31/2004

Table A-2
Participating Districts

District Name	1998/1999 Year I	1999/2000 Year II	2000/2001 Year III	2001/2002 Year IV
Antelope Valley APCD	✓	✓	✓	✓
Bay Area AQMD	✓	✓	✓	✓
Butte County AQMD		✓	✓	✓
Colusa County APCD				✓
Feather River AQMD		✓	✓	✓
Glenn County APCD	✓	✓	✓	✓
Imperial County APCD	✓	✓	✓	✓
Kern County APCD		✓		
Mendocino County AQMD		✓	✓	✓
Mojave Desert AQMD	✓	✓	✓	
Monterey Bay Unified APCD	✓	✓	✓	✓
North Coast Unified AQMD	✓	✓	✓	✓
Northern Sierra AQMD	✓	✓	✓	✓
Northern Sonoma County APCD	✓		✓	✓
Placer County APCD			Applied Only	
Sacramento Metropolitan AQMD	✓	✓	✓	✓
San Diego County APCD	✓	✓	✓	✓
San Joaquin Valley APCD	✓	✓	✓	✓
San Luis Obispo APCD	✓	✓	✓	✓
Santa Barbara County APCD	✓	✓	✓	✓
Shasta County APCD		✓	✓	✓
South Coast AQMD	✓	✓	✓	✓
Tehama County APCD			✓	✓
Ventura County APCD	✓	✓	✓	✓

1. South Coast Air Quality Management District (SCAQMD)

In the first three years of the Carl Moyer Program, SCAQMD received $39,371,209 in state funding and matched more than $15,185,700. South Coast has obligated more than 75 percent of their third year funds and has been allocated $7,055,564 from the fourth year program.

The SCAQMD program announcement has been sent to more than 15,000 businesses, government agencies, and interested industries annually. Criteria for selecting projects are based on the current Carl Moyer Program Guidelines, with priority given to alternative fuel projects. The amount of funding requested in the first and second year of the program totaled about $72 million, exceeding the amount of funds that SCAQMD has available to fund projects in the first three years of the program. All funds in the first and second years of the program have been spent and SCAQMD released its RFP on January 19, 2001 to select projects under the third year program. South Coast has released a Request for Proposals (RFP) in December 2001 to request projects for the remaining $4.5 million in funding from the third year funds along with their $7 million from the fourth year funding.

SCAQMD's program has been very successful. The district has funded more than 1,500 engines in the first three years. Some of the project participants that received funds in the South Coast during the first three years include Waste Management, Burrtec Waste Industries, Sunline, Omnitrans, Los Angeles County Metropolitan Transit Authority, Lucky Stores, Marine Terminals, Homebase, Lowe's HIW, Avery-Dennison, and Harbor Distributors. Table A-1 lists the types of projects paid for with funds received from the ARB, the number of engines funded, and an estimate of funds obligated by project category.

The staff of ARB estimates that SCAQMD's program, using funds allocated by the state, will result in a total of approximately 1100 tons of NOx reduced annually, with an average cost-effectiveness of about $5,500 per ton of NOx reduced. ARB anticipates that approximately 71.4 tons of PM will also be reduced.

Participating districts with one million inhabitants are required, by Section 43023.5 of the Health and Safety Code, to allocate at least fifty percent of the state funding to projects directly benefiting areas that are most significantly impacted by air pollution, including low income communities or communities of color, or both. In order to comply with this law, SCAQMD will evaluate all its fourth year projects according to poverty level, PM exposure, and air toxic exposure. SCAQMD has defined its regions of poverty where at least 10 percent of the population falls below the Federal poverty level. The district will also give

consideration to all projects operating in areas with the highest fifteen percent of PM concentration. Those projects that contain the above criteria will be considered projects directly benefiting areas of environmental justice.

Table A-3
Types and Number of Engines Paid For In the SCAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
Refuse Haulers	86		66		291	25	$12,771,037	$390,683
Transit Buses	117		117		507		$9,908,906	
Other			38		269	33	$4,573,170	$592,777
Off-Road Equipment:								
Other	12						$174,745	
Marine Vessel Engines:		6						$1,841,190
Forklifts (electric):	105				104		$2,083,527	
Total	**320**	**6**	**221**		**1171**	**58**	**$29,511,385**	**$2,824,650**

2. San Joaquin Valley Air Pollution Control District (SJVAPCD)

Over the first three years of the Carl Moyer Program, SJVAPCD has received $15,232,232 in state funding. SJVAPCD has matched this amount with $5,873,893 in district funds. Currently, the district has obligated funds for the first, second, and third years.

The district's initial RFP was designed to solicit project applications on a first-come-first-served basis until both first and second year funds were obligated. Criteria for selecting projects were based on the Carl Moyer Program Guidelines approved February 1999. For third year funds, SJVAPCD released its formal call for projects (CFP) on January 4, 2001 to select projects, and received more than $25 million in funding requests. The district has a waiting list of applicants.

SJVAPCD's program has proven to be a great success, based on the projects that the district has funded in the first three years. The SJVAPCD program has been extremely popular with area farmers. Some of the types of projects that the district paid for include: agricultural pump engines, refuse haulers, street sweepers, tractors, line-haul trucks, and delivery trucks. Table A-4 lists the types of projects paid for using Carl Moyer Program funds allocated by the state, the number of engines funded, and an estimate of funds obligated by project category. ARB estimates that with three years of funding, SJVAPCD will achieve approximately 1,341 tons of NOx and more than 55 tons of PM reductions annually, over the life of the projects. Based on the amount of funds that the district received from ARB, the district's program cost-effectiveness averages about $3,300/ton of NOx reduced.

The vast majority of SJVACPD projects benefit farming communities. Many migrant workers work directly or in close proximity to the irrigation pumps. The emissions reduced benefit these migrant workers and their families.

Table A-4
Types and Number of Engines Paid For In the SJVAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
Heavy-Duty Line Haul		29						$ 712,950
Refuse Haulers		6		19				$ 165,542
Other	3	1					$26,567	$ 21,300
Off-Road Equipment:								
Agricultural		7		18				$240,915
Agricultural Irrigation Pumps:	12	306	2	239		538	$179,551	$13,006,079
Total	**15**	**349**	**2**	**276**		**538**	**$206,118**	**$14,146,786**

3. Bay Area Air Quality Management District (BAAQMD)

Over the first three years of the Carl Moyer Program, BAAQMD received $8,686,133 in state funding, matched with $3,361,737 in district funds. The district's program was a competitive process focusing on cost-effectiveness. The district program focused on paying for locomotives, marine vessels, off-road agricultural equipment and irrigation pumps. To date, 100 percent of first and second year funds have been awarded to projects and the district is in the process of completing contracts for the third year of the program.

ARB estimates that state funds obligated by BAAQMD to date will produce approximately 597 tons of NOx and 33 tons of PM reductions annually, during the life of the projects. The district's program cost-effectiveness for those funds averages about $2,000/ton of NOx reduced. Some of the types of projects that the district funded include marine vessels, on-road engines, one off-road project, and two locomotives. Table A-5 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-5
Types and Number of Engines Paid For In the BAAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road						13		$231,000
Off-Road					1			$ 19,800
Locomotives	2						$820,000	
Marine Vessels		32		14		25		$7,705,323
Total	**2**	**32**		**14**	**1**	**38**	**$820,000**	**$7,956,123**

4. Sacramento Metropolitan Air Quality Management District (SMAQMD)

For the first three years of the program, SMAQMD received $7,514,437 in state funding matched with $2,866,255 in district funding. Since that time, the district has had an on-going heavy-duty incentive program in place and it has incorporated the Carl Moyer Program into that program. The district's program is designed to select the most cost-effective projects to yield the greatest NOx reductions to meet Sacramento's much-needed conformity and air quality plans.

To date, SMAQMD has obligated and awarded both first and second year funds and is working to finalize the contracts from the third year. The vast majority of Sacramento's funds went to agricultural irrigation pumps and agricultural off-road vehicles. The district also funded off-road equipment.

ARB estimates that state funds granted to the district will provide approximately 611 tons of NOx, and 23 tons of PM reductions annually over the life of these projects. Overall, the district's program cost-effectiveness averages about $4,500/ton of NOx reduced. Table A-6 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-6
Types and Number of Engines Paid For In the SMAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
School Buses	4						$120,000	
Off-Road:								
Agricultural:						17		$246,312
Construction:						30		$725,704
Other:						7		$116,364
Agricultural Irrigation Pumps:		200		165	3	300	$77,390	$6,025,611
Total	**4**	**200**		**165**	**3**	**354**	**$197,390**	**$7,113,991**

5. San Diego County Air Pollution Control District (SDCAPCD)

In the first three years of the Carl Moyer Program, SDCAPCD received $3,745,503 in state funding and matched $1,451,075 in district funds.

To date, SDCAPCD has obligated all of the first and second year funds, and is completing the implementation of its third year funds. The types of projects funded by SDCAPCD include alternative fuel urban transit and school buses, waste haulers and diesel marine vessel repowers.

ARB estimates that in the first three years, SDCAPCD will reduce approximately 130 tons of NOx, and 9.2 tons of PM annually, over the life of the projects. Overall, the district's program cost-effectiveness averages about $5,500/ton of NOx reduced. Table A-7 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-7
Types and Number of Engines Paid For In the SDCAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road								
Refuse Haulers			9			1	$234,051	$20,872
Urban Transit Buses	50		16				$677,920	
School Buses	3		5				$195,640	
Other						23		$564,350
Marine Vessels		8		3		17		$1,971,015
Total	**53**	**8**	**30**	**3**		**41**	**$1,107,611**	**$2,556,237**

6. Ventura County Air Pollution Control District (VCAPCD)

In the first three years of the program, VCAPCD received $3,049,342 in state funding and matched these funds with $1,172,908 in district funds. VCAPCD has received project applications for agricultural pump engines, marine vessel engines, and on-road engine repowers. VCAPCD estimated that the funding requests totaled more than $5.5 million, which exceeds the amount of Carl Moyer Program funds that the state allocated to VCAPCD to implement its program over three years.

To date, VCAPCD has obligated all of its first and second year funds and has allocated about sixty percent of its third year funds. The types of projects that the district has funded include alternative fuel refuse haulers, street sweepers, agricultural irrigation pumps, and marine vessels.

The staff of ARB estimates that in the first three years of VCAPCD's program, the district will reduce 90 tons of NOx and 2.1 tons of PM emission annually, over the life of the projects. Overall, the district's program cost-effectiveness averages about $2,900/ton of NOx reduced. Table A-8 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-8
Types and Number of Engines Paid For In the VCAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
Refuse Haulers	8		9		2		$1,390,353	
Off-Road:								
Other		5						$ 74,070
Agricultural Irrigation Pumps		4				3		$ 71,876
Marine Vessels		15		12		9		$1,498,029
Total	**8**	**24**	**9**	**12**	**2**	**12**	**$1,390,353**	**$1,643,975**

7. Mojave Desert Air Quality Management District (MDAQMD)

In the first three years of the Carl Moyer Program, MDAQMD has received $3,016,999 in state funding to which it matched $1,158,507 in district funding. In the first two years, MDAQMD issued a CFP. The district mailed solicitations to the following industries: fuel distributors/utilities, railroad industry, transit agencies, school districts, alternative fuel vehicle/engine providers/associations, city/county state government fleets, public/private fleets, commercial delivery/distributions/associations, consultants, construction, Chambers of Commerce, waste haulers, manufacturing facilities, and military facilities. MDAQMD's process for selecting projects is based on the total dollar amount of funding requests received in the first five business days following the release of the CFP. If funding requests did not exceed the amount of funds available in the district, projects were selected based on a first-come-first-served basis. If the total funding requests exceeded the money available, projects were reviewed and selected on a competitive basis.

To date, MDAQMD has obligated all of its first year funds to fund 19 natural gas refuse haulers. Under the second year of the program, MDAQMD anticipates funds will be obligated to projects by June 30, 2002 for various on and off-road projects. MDAQMD is in the process of allocating its third year funds. MDAQMD has elected not to participate in the fourth year of the program.

The ARB staff estimates that the first two years of MDAQMD's program will result in approximately 32 tons of NOx reductions and 2.1 tons of PM reductions. Overall, the district's program cost-effectiveness averages about $5,500/ton of NOx reduced. Table A-9 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-9
Types and Number of Engines Paid For In the MDAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:						
Refuse Haulers	19				$ 845,791	
Other			16		$ 394,976	
Off-Road				3		$ 34,678
Total	**19**		**16**	**3**	**$1,240,767**	**$ 34,678**

8. Antelope Valley Air Pollution Control District (AVAPCD)

AVAPCD has participated in three years of the Carl Moyer Program. It has received a total of $977,571 in state funding from the first three years of the program, which it has matched with $386,235 in district funding. AVAPCD will receive $210,149 from the fourth year funds. In the past, AVAPCD has sent out a CFP to solicit applications for program funding.

To date, AVAPCD has obligated all of its first and second year funds, and will finish executing its third year funds by June 2002. AVAPCD's program has primarily funded alternative fueled refuse vehicles. The NOx and PM reductions benefit residential neighborhoods as well as refuse workers who are directly impacted by the trucks' emissions.

Staff of ARB estimates that the first three years of AVAPCD's program will result in a total of approximately 17 tons of NOx and 700 pounds of PM in annual reductions. Overall, the average cost-effectiveness for the district's program is about $9,000/ton of NOx reduced. Table A-10 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-10
Types and Number of Engines Paid For In the AVAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
Refuse Haulers	9	1	6		2		$701,034	$17,490
Off-Road								
Construction						7		**$**287,802
Total	**9**	**1**	**6**		**2**	**7**	**$701,034**	**$305,292**

9. Santa Barbara County Air Pollution Control District (SBCAPCD)

SBCAPCD received a total of $977,571 in Carl Moyer Program state funds, to which it has matched $386,235 in district funds. To date, SBCAPCD has obligated all of its first, second and third year funds to pay for marine vessel repowers, on-road projects such as the Clean Air Express Commuter Bus CNG Repower Project, and agricultural pump engines.

ARB staff estimates that in the first three years, SBCAPCD's program has produced more than 38 tons of NOX and 1.25 tons of annual PM reductions, for the life of the projects. The district's average cost-effectiveness was about $4,500/ton of NOx reduced. Table A-11 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-11
Types and Number of Engines Paid For In the SBCAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
Urban Transit Buses	3						$169,749	
Refuse Haulers					4	2	$81,214	$40,410
Other				1				$20,818
Agricultural Irrigation Pumps					4	6	$97,622	$138,213
Marine Vessels		5		6		4		$412,728
Total	**3**	**5**		**7**	**8**	**12**	**$169,749**	**$341,004**

10. Kern County Air Pollution Control District (KCAPCD)

KCAPCD participated for the second year of the program only. In the second year KCAPCD was allocated $225,000 and requested $100,000 in program funds to pay for one project that the district selected. KCAPCD notified ARB that the district would only use $100,000 of second year funds and not participate in the third year program, for which the district had been allocated $450,000. This district's remaining funds from the second and third year were reallocated to the interdistrict solicitation, which was sent out by the ARB on December 21, 2001. The staff of ARB estimates that KCAPCD will produce about 2.9 tons of NOx and 160 pounds of PM reductions, with an average cost-effectiveness of $4,200/ton of NOx reduced.

11. Monterey Bay Unified Air Pollution Control District (MBUAPCD)

Over the first three years of the program MBUAPCD has a total of $860,093 in state funding, which it has matched with $327,940 in district funding. Traditionally, the district separated its funds into three amounts. This allowed each of the three counties under MBUAPCD's jurisdiction to benefit from projects paid for under the program. These counties include Monterey, Santa Cruz, and San Benito. Funding amounts were determined using the population in each of these counties. Projects were selected on a first-come-first-served basis. MBUAPCD issued an RFP for the third year of their program in June of 2001. MBUAPCD's program has been extremely successful, with more than 100 applicants seeking funds. MBUAPCD is currently completing the allocation of its third year funds.

In compliance with Section 43023.5 of the Health and Safety Code, MBUAPCD has analyzed its district to find areas of environmental justice. MBUAPCD performed a case study to determine the areas to concentrate its environmental justice efforts. MBUAPCD defined its environmental justice areas as a function of diesel toxicity risk, low income and minority populations. Using these three criteria, MBUAPCD was able to plot communities in need. MBUAPCD determined that more than 80 percent of the district was disproportionately impacted. MBUAPCD will apply these criteria to projects for fourth year funds.

To date, MBUAPCD has obligated all of its first and second year funds, and about seventy-six percent of its third year funds. The staff of ARB estimates that in the first three years of MBUAPCD's program, the district was able to reduce 8.5 tons of NOx and more than 1.6 tons of PM annually over the life of the projects. The district's average cost-effectiveness is $7,200 per ton of NOx reduced. Table A-12 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-12
Types and Number of Engines Paid For In the MBUAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
Urban Transit Buses	8						$265,800	
Agricultural Irrigation Pumps						3		$131,715
Marine Vessels				6		10		$436,623
Total	**8**			**6**		**13**	**$265,800**	**568,338**

12. San Luis Obispo County Air Pollution Control District (SLOCAPCD)

SLOCAPCD has participated since the beginning of the Carl Moyer Program. In the first three years of the program, SLOCAPCD received a total of $417,746 in state funding and matched $168,593. In the first year of the program, the district allocated all its funds to the Hearst Castle Historical Monument. The Carl Moyer Program funding helped to replace 15 full size diesel buses and a diesel para-transit bus with a new fleet of CNG buses. In the second year, SLOCAPCD issued an RFP and accepted applications on a first-come-first-served basis. SLOAPCD is in the process of obligating its third year funds, which the district expects to complete by June 30, 2002. Thus far SLOAPCD has obligated third year funds to an LNG school bus, a concrete delivery truck and three marine vessel engines.

The staff of ARB estimates that from its first two years, SLOCAPCD's program will reduce 12.2 tons of NOx and 4.32 tons of PM annually for the life of the projects. Overall, the average cost-effectiveness for the district's program is about $5,300/ton of NOx reduced. Table A-13 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-13
Types and Number of Engines Paid For In the SLOCAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:								
Urban Transit Buses	16						$ 157,800	
School Buses					1		$8,902	
Other					1		$30,650	
Agricultural Irrigation Pumps			2					$8,000
Marine Vessel			3			3		$206,482
Total	**16**		**5**		**2**	**3**	**$197,352**	**$214,482**

13. Imperial County Air Pollution Control District (ICAPCD)

ICAPCD has participated in Carl Moyer Program since its start in Fiscal year 1998/1999. Over the first three years of the program, ICAPCD has received $381,543 that it matched with $150,491 in district funds. The district distributed applications through the Agricultural Commissioner's Office, the Farm Bureau, and through a direct mailing and distribution effort. The types of industries notified include firms with agricultural and earthmoving equipment, on-road equipment operators, farmers, trucking companies, hay processors, and agricultural irrigation pump operators. ICAPCD accepted applications on a first-come-first-served basis and conducted evaluations based on cost-effectiveness.

To date, the district has obligated all of its first and second year funds, and about 20 percent of its third year funds to pay for agricultural irrigation pumps and off-road tractors. The district is completing its contracts for third year funds. The staff of ARB estimates that in ICAPCD's first three program years, it will generate approximately 31.3 tons of NOx and 1.4 tons of PM annually for the life of the projects. Overall, the average cost-effectiveness for the district's program is about $1,600/ton of NOx reduced. Table A-14 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by

project category.

Table A-14
Types and Number of Engines Paid For In the ICAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
Off-Road				4				$ 45,000
Agricultural Irrigation Pumps		13				3		$168,800
Total		**13**		**4**		**3**		**$213,800**

14. Northern Sierra Air Quality Management District (NSAQMD)

NSAQMD has participated in the Carl Moyer Program since the 1998/1999 fiscal year. For the first three years of the program, NSAQMD received $357,142 in state funding, which it matched with $132,291 in district funds. NCAQMD's outreach efforts include news releases, mailings, and radio advertisements. The district accepted applications on a first-come-first-served basis.

To date, the district has obligated all of its first and second year funds, and 60 percent of its third year funds to pay for on- and off-road engines. The staff of ARB estimates in the first three years, NSAQMD's program will result in more than 12.1 NOx tons and 1.3 tons of PM emission reductions annually, for the life of the projects. Overall, the average cost-effectiveness for the district's program is about $6,600/ton of NOx reduced. Table A-15 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-15
Types and Number of Engines Paid For In the NSAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road								
Refuse Haulers		6		2		1		$120,952
Urban Transit Buses			1					$9,065
Other		1		1		3		$130,922
Off-Road Equipment:								
Other		2						$34,000
Total		**9**	**1**	**3**		**4**		**$294,939**

15. Northern Sonoma County Air Pollution Control District (NSCAPCD)

NSCAPCD participated in the first year of the program, but did not participate in the second year. The district rejoined in the third year and will be receiving funds for the fourth year as well. In the first and third year of the program, NSCAPCD received a total of $263,900, which it matched with $97,767 in district funds. NSCAPCD has been allocated $75,000 from the fourth year funds.

In the first year of the program the district sent out an RFP to agricultural industries, farms, transportation associations, school districts, and government agencies. NSCAPCD is in the process of allocating its third year funds to projects. The district has allocated some third year money to alternative fuel school and urban transit buses, and one diesel marine vessel.

To date, the district has obligated all of its first year funds to pay for on- road and marine vessel engines. The staff of ARB estimates that the two years of NSCAPCD's Carl Moyer Program produced approximately 9.6 NOx tons and 1080 pounds of PM emission reductions annually, for the life of the projects. Overall, the average cost-effectiveness for the district's program is about $5,300/ton of NOx reduced. Table A-16 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-16
Types and Number of Engines Paid For In the NSCAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road						
Urban Transit Buses	7		8		$133,900	
School Buses			7		$50,000	
Marine Vessels		2		1		$60,000
Total	**7**	**2**	**15**	**1**	**$183,900**	**$60,000**

16. Glenn County Air Pollution Control District (GCAPCD)

Glenn County has participated in the Carl Moyer Program since the first year. In the three years of the program, Glenn County has received $303,743, which the district has matched with $117,688. In the first and second years of the program, the district solicited applications through an RFP in November 1999 and September 2000, respectively. Projects operating within the county received 90 percent of incremental costs, while those operating outside the county received 85 percent of incremental costs. GCAPCD is completing the contract execution of second year funds. The district will begin allocation of its third year funds at the end of March 2002. GCAPCD will participate in the fourth year of the program, from which it will receive a total of $75,000.

To date, the district has obligated all of its first and second year funds received by the state to pay for agricultural irrigation pump engines, and off-road agricultural engines. From the first year alone, ARB estimates GCAPCD will reduce emissions by 11.5 tons of NOx and 1480 pounds of PM annually over the life of the projects. The staff of ARB estimates that GCAPCD's program will result in a total of approximately 63 tons of NOx reductions and 3.2 tons of PM reductions. Overall, the average cost-effectiveness for the district's program is about $3,000/ton of NOx reduced. Table A-17 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-17
Types and Number of Engines Paid For In the GCAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
Agricultural Irrigation Pumps		14		7		$199,337
Total		**14**		7		**$210,700**

17. North Coast Unified Air Quality Management District (NCUAQMD)

NCUAQMD has participated in the Carl Moyer Program since the first year of the program. In three years of participation, NCUAQMD has received a total of $350,005 in state funding which the district matched with $126,722. NCUAQMD accepted applications on a first-come-first-served basis. The district is in the process of allocating its third year funds, which it plans to complete by June 2002.

To date, the district has obligated all of its first and second year funds, and about 85 percent of its third year funds for on-road, off-road, and marine vessel engines. The staff of ARB estimates that NCUAQMD's first and second and third year program will result in a total of approximately 21 tons of NOx and 2 tons of PM reductions per year with an average cost-effectiveness of about $5,500/ton of NOx reduced. Table A-18 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-18
Types and Number of Engines Paid For In the NCUAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year I		Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road								
Line Haul		2						$64,648
Other		4		4		7		$230,572
Off-Road Equipment								
Construction		3				2		$52,780
Marine Vessels		1						$31,000
Total		**10**		**4**		**9**		**$379,000**

18. Butte County Air Quality Management District (BCAQMD)

BCAQMD began participating in the second year of the program. In the second and third years of the program, BCAQMD received a total of $254,592 in state funding and provided $87,016 in match funding. The district accepted applications on a first-come-first-served basis.

The district has obligated all of its second year funds for agricultural irrigation pump engines. BCAQMD expects to allocate the funds for its third year program by June 2002. ARB staff estimates that BCAQMD's program will result in a total of approximately 4.7 tons of NOx reductions and 480 pounds of PM reductions annually for the life of the projects from its second year funding. Overall, the average cost-effectiveness for the district's program is about $3,000/ton of NOx reduced. BCAQMD will participate in the fourth year of the program, in which it will receive $75,000. Table A-19 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-19
Types and Number of Engines Paid For In the BCAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road				
Off-Road				
Agricultural Irrigation Pumps		6		$75,781
Total		**6**		**$75,781**

19. Shasta County Air Quality Management District (Shasta County AQMD)

Shasta County AQMD entered the second year of the Carl Moyer Program. In the second and third years of the program, Shasta County AQMD received a total of $249,727 in state funding which it matched with $84,583 in district funding. In the second and third years of the program the Shasta County AQMD solicited project applicants through local newspapers, mailings, and through engine and equipment dealers. For its first two years of participation, Shasta County AQMD staff made a noteworthy outreach effort. The district was even successful in having their program featured in the local news.

To date, Shasta County AQMD has spent all of its second year funds and is in the process of allocating its third year funds, with projects having an average cost-effectiveness of $3,500 per NOx ton reduced. Shasta County AQMD combined a portion of their second and third year funds in an effort to fully fund the most cost-effective projects. With its second year funds, Shasta County AQMD was able to reduce emissions by more than 6 tons of NOx and 720 pounds of PM per year over the life of the projects. Table A-20 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-20
Types and Number of Engines Paid For In the SCAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road		2		$19,000
Off-Road		3		$27,800
Agricultural Irrigation Pumps		1		$15,000
TOTAL		**6**		**$61,800**

20. Feather River Air Quality Management District (FRAQMD)

FRAQMD began participating in the second year of the Carl Moyer Program. FRAQMD received a total of $245,851, which it matched with $82,645 to implement the Carl Moyer Program in its district. FRAQMD has based its program on a first-come first -served basis. In the first and second years of district participation, FRAQMD funded several agricultural pumps, an on-road line haul truck, and various off-road tractors , reducing emissions by 30 tons of NOx and more than 640 pounds of PM per year, with an average cost-effectiveness of $3,000/ton of NOx reduced. Table A-21 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-21
Types and Number of Engines Paid For In the FRAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year II		Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road:						
Line-haul				1		$11,063
Off-Road:						
Agricultural				10		$48,265
Other				1		$12,550
Agricultural Irrigation Pumps		9		25		$223,676
TOTAL		**9**		**37**		**$295,554**

21. Mendocino County Air Quality Management District (MCAQMD)

MCAQMD began participating in the second year of the program. MCAQMD received $212,018 in the second and third years of the program, which it matched with $71,825. MCAQMD was able to fund projects from four categories during its first year of participation, which include on-road, off-road, agricultural pump and marine vessel engines. With its second year funds, MCAQMD will produce approximately 5.3 tons of NOx reductions and more than 1,540 pounds of PM reductions, with an average cost-effectiveness of $3,500/ton of NOx reduced. The district is currently accepting applications on a first-come-first-served basis for third year funds. MCAQMD is currently working to allocate the remainder of its 2000/2001 fiscal year funds and anticipates third year funds will be obligated by June 30, 2002. Table A-22 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-22
Types and Number of Engines Paid For In the MCAQMD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year II		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel
On-Road		2		$28,615
Off-Road		1		$10,000
Agricultural Irrigation Pumps		1		$7,824
Marine Vessel		2		$15,000
Total		**6**		**$61,439**

22. Tehama County Air Pollution Control District (TCAPCD)

TCAPCD participated in the third year of the program, in which it received $150,000 in state funds and matched $40,817. The district did not participate in the first or second year of the program. In the third year of the program, TCAPCD mailed applications to local trucking firms, repair shops and farms and accepted applications on a first-come first-served basis. The district began receiving completed applications on June 1, 2001, is currently in the process of completing its third year program and has applied for fourth year funds. From its third year funds, TCAPCD was able to fund 17 agricultural pumps. These projects will reduce NOx by 21.19 tons per year, and PM by 1.1 tons per year, with an average cost-effectiveness of $2,200/ton of NOx reduced. TCAPCD was allocated $75,000 from fourth year funding and will match these funds with $37,500. Table A-23 lists the types of projects funded, the number of engines funded, and an estimate of funds obligated by project category.

Table A-23
Types and Number of Engines Paid For In the TCAPCD
Carl Moyer Funds Allocated by ARB

Source Category/ Equipment Type	Number of Engines Year III		Funds Total	
	Alt Fuel	Diesel	Alt Fuel	Diesel
Agricultural Irrigation Pumps		17		$150,000
Total		**17**		**$150,000**

23. Colusa County Air Pollution Control District (CCAPCD)

Colusa County Air Pollution Control District has applied for fourth year Carl Moyer Program funding. This will be the first year for CCAPCD to participate in the program. The district is slated to receive $75,000 in state funds, for which they will be required to match $37,500.